

**Amendments to the Claims:**

This listing of the claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1-51 (Cancelled)

52 (Previously Presented). The peptide of Claim 100 or 103, wherein said peptide is a dimer.

53 (Previously Presented). The peptide of Claim 100 or 103 wherein said peptide is a multimer.

54 (Previously Presented). The peptide of Claim 53, wherein said peptide is a trimer.

55 (Previously Presented). The peptide of Claim 100 or 103, wherein said peptide is conformationally constrained.

56 (Previously Presented). The peptide of Claim 55, wherein said peptide is cyclized.

57 (Previously Presented). The peptide of Claim 100 or 103, wherein said peptide has an N-terminal lauryl-cysteine (LC) and/or a C-terminal cysteine.

58 (Previously Presented). The peptide of Claim 100 or 103, wherein said peptide has an N-terminal and C-terminal cysteine.

59 (Previously Presented). The peptide of Claim 58, wherein said peptide has an intramolecular disulfide bridge.

60 (Previously Presented). The peptide of Claim 100 or 103 wherein said peptide has an N-terminal and a C-terminal D-amino acid residue.

61 (Previously Presented). The peptide of Claim 60, wherein the D-amino acid is D-alanine.

62 (Previously Presented). The peptide of Claim 100 or 103, wherein said peptide has an N-terminal acetyl group.

63 (Previously Presented). The peptide of Claim 100 or 103, wherein said peptide has a C-terminal D-amino acid residue.

64 (Previously Presented). The peptide of Claim 63, wherein the D-amino acid is D-alanine.

65 (Previously Presented). An isolated peptide consisting of the amino acid sequence of SEQ. ID NO.:1 wherein said peptide does not have toxin agonist activity and is capable of antagonizing toxin-mediated activation of T-lymphocytes.

66 (Previously Presented). An isolated peptide consisting of the amino acid sequence of SEQ. ID NO.:2 wherein said peptide does not have toxin agonist activity and is capable of antagonizing toxin-mediated activation of T-lymphocytes.

67 (Previously Presented). An isolated peptide consisting of the amino acid sequence of SEQ. ID NO.:3 wherein

said peptide does not have toxin agonist activity and is capable of antagonizing toxin-mediated activation of T-lymphocytes.

68 (Previously Presented). An isolated peptide consisting of the amino acid sequence of SEQ. ID NO.:4, wherein said peptide does not have toxin agonist activity and is capable of antagonizing toxin-mediated activation of T-lymphocytes.

69 (Previously Presented). An isolated peptide consisting of the amino acid sequence of SEQ. ID NO.:5 wherein said peptide does not have toxin agonist activity and is capable of antagonizing toxin-mediated activation of T-lymphocytes.

70 (Previously Presented). An isolated peptide consisting of the amino acid sequence of SEQ. ID NO.:6 wherein said peptide does not have toxin agonist activity and is capable of antagonizing toxin-mediated activation of T-lymphocytes.

71. (Previously Presented). An isolated peptide consisting of the amino acid sequence of SEQ. ID NO.:7 wherein said peptide does not have toxin agonist activity and is capable of antagonizing toxin-mediated activation of T-lymphocytes.

72 (Previously Presented). An isolated peptide consisting of the amino acid sequence of SEQ. ID NO.:8 wherein said peptide does not have toxin agonist activity and is capable of antagonizing toxin-mediated activation of T-lymphocytes.

73 (Previously Presented). An isolated peptide consisting of the amino acid sequence of SEQ. ID NO.:9 wherein said peptide does not have toxin agonist activity and is capable of antagonizing toxin-mediated activation of T-lymphocytes.

74 (Previously Presented). An isolated peptide consisting of the amino acid sequence of SEQ. ID NO.:10 wherein said peptide does not have toxin agonist activity and is capable of antagonizing toxin-mediated activation of T-lymphocytes.

75 (Previously Presented). An isolated peptide consisting of the amino acid sequence of SEQ. ID NO.:11 wherein said peptide does not have toxin agonist activity and is capable of antagonizing toxin-mediated activation of T-lymphocytes.

76 (Previously Presented). A composition which inhibits pyrogenic exotoxin-mediated activation of T-lymphocytes comprising an isolate comprising an isolated and purified peptide in accordance with Claim 100 in an amount

effective to inhibit exotoxin-induced expression of an RNA encoded by the IL-2, IFN- $\gamma$ , and/or TNF- $\beta$  genes, and a carrier.

77 (Previously Presented). The composition of Claim 76, wherein the peptide has a sequence selected from the group consisting of SEQ. ID NO.:1, SEQ. ID NO.:2, SEQ. ID NO.:3, SEQ. ID NO.:4, SEQ. ID NO.:5, SEQ. ID NO.:6, SEQ. ID NO.:7, SEQ. ID NO.:8, SEQ. ID NO.:9, SEQ. ID NO.:10, and SEQ. ID NO.:11.

78 (Previously Presented). The composition of Claim 76, wherein the peptide has a sequence selected from the group consisting of SEQ. ID NO.:2, SEQ. ID NO.:6, SEQ. ID NO.:7, SEQ. ID NO.:8, SEQ. ID NO.:9, SEQ. ID NO.:10 and SEQ. ID NO.:11.

79 (Previously Presented). The composition of Claim 76, wherein the peptide has the sequence of SEQ. ID NO.:2.

80 (Previously Presented). An immunogenic composition for eliciting antibodies that block pyrogenic exotoxin mediated activation of T-lymphocytes comprising an isolated and purified peptide in accordance with Claim 100 in an amount effective to elicit said antibodies, and a carrier.

81 (Previously Presented). The immunogenic composition of Claim 80, further comprising an adjuvant selected from the group consisting of proteosomes, KLH, alum and mixtures thereof.

82 (Previously Presented). The immunogenic composition of Claim 80, wherein the peptide has a sequence selected from the group consisting of SEQ. ID NO.:1, SEQ. ID NO.:2, SEQ. ID NO.:3, SEQ. ID NO.:4, SEQ. ID NO.:5, SEQ. ID NO.:6, SEQ. ID NO.: 7, SEQ. ID NO.:8, SEQ. ID NO.:9, SEQ. ID NO.:10 and SEQ. ID NO.:11.

83 (Previously Presented). The immunogenic composition of Claim 80, wherein the peptide has a sequence selected from the group consisting of SEQ. ID NO.:2, SEQ. ID NO.:6, SEQ. ID NO.: 7, SEQ. ID NO.:8, SEQ. ID NO.:9, SEQ. ID NO.:10 and SEQ. ID NO.:11.

84 (Previously Presented). The immunogenic composition of Claim 80, wherein the peptide has the sequence of SEQ. ID NO.:2.

85 (Previously Presented). An immunogenic composition for eliciting protective immunity against toxic shock comprising an isolated and purified peptide in accordance with Claim 100 in an amount effective to elicit said protective immunity, and a carrier.

86-93 (Cancelled)

94 (Previously Presented). The peptide of Claim 103, wherein the peptide is capable of eliciting antibodies that block pyrogenic exotoxin-mediated activation of T-lymphocytes.

95-99 (Cancelled)

100 (Currently Amended). An isolated and purified peptide consisting of:

a) a peptide consisting of an amino acid sequence which is within a domain of a pyrogenic exotoxin which domain forms a central turn in the exotoxin and includes  $\beta$ -strand 7, short  $\beta$ -strand 8, and  $\alpha$ -helix 4, based on the domain numbering of *Staphylococcus aureus* enterotoxin B (SEB), said sequence starting within or immediately after  $\beta$ -strand 7 and ending within  $\alpha$ -helix 4, wherein said isolated peptide does not have toxin agonist activity and is capable of antagonizing toxin-mediated activation of T-lymphocytes;

b) a peptide ~~having at least 25% homology with said peptide of a)~~ having insertions, deletions or substitutions of up to three amino acids, wherein the resultant peptide does not have toxin agonist activity and is capable of antagonizing toxin mediated activation of T-lymphocytes;

c) a peptide of a) or b) that is extended at the N-terminus and/or the C-terminus by one or two naturally occurring or synthetic amino acid residues, or by an organic moiety that is not a naturally-occurring or synthetic amino acid residue, wherein the resultant peptide does not have

toxin agonist activity and is capable of antagonizing toxin mediated activation of T-lymphocytes;

d) a dimer or multimer of a), b), or c), wherein the resultant peptide does not have toxin agonist activity and is capable of antagonizing toxin mediated activation of T-lymphocytes; or

e) a peptide of a), b) or c) in a constrained conformation, wherein the resultant peptide does not have toxin agonist activity and is capable of antagonizing toxin mediated activation of T-lymphocytes.

101 (Previously Presented). A peptide in accordance with Claim 100, wherein said peptide of a) consists of a dodecamer that is part of said domain consisting of amino acids 150-161, using the amino acid number of SEB.

102 (Cancelled)

103 (Previously Presented). An isolated and purified peptide consisting of:

a) a peptide of the amino acid sequence  
Lys Lys Xaa Xaa Xaa Xaa Gln Glu Leu Asp (SEQ.  
ID NO.:13,  
Xaa Xaa Lys Lys Xaa Xaa Xaa Xaa Gln Glu Leu Asp  
(SEQ. ID NO.:14) or  
(Thr or Tyr) Xaa Lys Xaa Xaa Xaa Xaa Xaa Xaa  
Glu Xaa Asp (SEQ. ID NO.:15),



wherein said peptide does not have toxin agonist activity and is capable of antagonizing toxin mediated activation of T-lymphocytes;

b) a peptide of a) that is extended at the N-terminus and/or the C-terminus by one or two naturally occurring or synthetic amino acid residues, or by an organic moiety that is not a naturally-occurring or synthetic amino acid residue, wherein the resultant peptide does not have toxin agonist activity and is capable of antagonizing toxin mediated activation of T-lymphocytes;

c) a dimer or multimer of a), or b), wherein the resultant peptide does not have toxin agonist activity and is capable of antagonizing toxin mediated activation of T-lymphocytes; or

d) a peptide of a), or b) in a constrained conformation, wherein the resultant peptide does not have toxin agonist activity and is capable of antagonizing toxin mediated activation of T-lymphocytes.

104 (Previously Presented). A peptide in accordance with Claim 103, wherein said peptide of a) is SEQ. ID NO.:13.

105 (Previously Presented). A peptide in accordance with Claim 103, wherein said peptide of a) is SEQ. ID NO.:14.

106 (Previously Presented). A peptide in accordance with Claim 103, wherein said peptide of a) is SEQ. ID NO.:15.

107 (Previously Presented). A peptide in accordance with Claim 103, wherein the peptide of a) is SEQ. ID NO.:2.

108 (Previously Presented). A peptide in accordance with Claim 103, wherein the peptide of a) is SEQ. ID NO.:4.

109 (Previously Presented). The peptide of Claim 100 or 103, wherein said peptide of a) is SEQ. ID NO.:1.

110 (Previously Presented). The peptide of Claim 100 or 103, wherein said peptide of a) is SEQ. ID NO.:3.

111 (Previously Presented). A composition comprising a peptide in accordance with Claim 100 or 103 and a carrier.

112 (Previously Presented). The composition of Claim 76, wherein, in said peptide, said peptide of a) consists of a dodecamer that is part of said domain consisting of amino acids 150-161, using the amino acid number of SEB.

113 (Previously Presented). The immunogenic composition of Claim 80, wherein, in said peptide, said peptide of a) consists of a dodecamer that is part of said domain consisting of amino acids 150-161, using the amino acid number of SEB.